

## Abstract of the Disclosure

An optical network is formed by a plurality of optical network transmission apparatuses and a plurality of transmission lines that connect the optical network transmission apparatuses. Each optical network transmission apparatus includes an advertisement unit which autonomously advertises a usable wavelength in a transmission line connected to the apparatus, and a collection unit which autonomously collects a usable wavelength in a transmission line that is advertised by another apparatus. An optical network transmission apparatus, a distributed routing control method used for the apparatus, and a recoding medium which records the program of the method are also disclosed.